NAVFAC
Naval Facilities Engineering Command
BRAC PMO WEST

Update for Data Gap Investigation Field Activities For

Feasibility Study Addendum
Radiological and Solid Waste Disposal Areas
IR Site 12
Former Naval Station Treasure Island

August 2018 BRAC Cleanup Team (BCT) Meeting

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August 15, 2018

Site 12 FS Addendum (2018)

- **FS Addendum will supplement existing FS (2014) and FS Addendum (2015)**
  - **FS Addendum (2018) will address:**
    - Chemical impacts at the SWDAs (Bayside, Northpoint and Westside)
      - FS would recommend No Further Action at the SWDAs.
      - NTCRA would address all chemical issues in the SWDAs.
      - Includes SWDAs
    - Radiological impacts at *all* of IR Site 12
      - The CERCLA process was well underway before all of Site 12 was subject to radiological investigation in 2013-2014.
      - Dual path allowed us to keep chemical remediation on track while evaluating Site 12 rad alternatives.

Site 12 FS Addendum – Data Gaps Investigation

- **Data Gaps Investigation at Site 12**
  - **Conducted to supplement all current radiological data and support preparation of the FS Addendum**
  - **Includes radiological characterization of open space areas at 4 locations at Site 12 (no buildings or structures)**
  - **Results will support evaluation of remedial alternatives for radiological concerns in FS Addendum**
- **Final Work Plan Submitted July 19, 2018**
- **Field Work (Characterization Surveys) Recently Completed**
  - **Initiated on July 23, 2018**
  - **Completed on August 10, 2018**

Scope of Data Gaps Investigation – Background

- **Radiological Characterization Surveys of Open Space Areas at 4 Locations.**

- **SU boundaries established at each location**
  - **Only open areas, no buildings or structures**
  - **SU boundaries modified slightly in field to avoid paved areas such as roadways, sidewalks, parking lots**

Survey Boundaries – Data Gaps Investigation

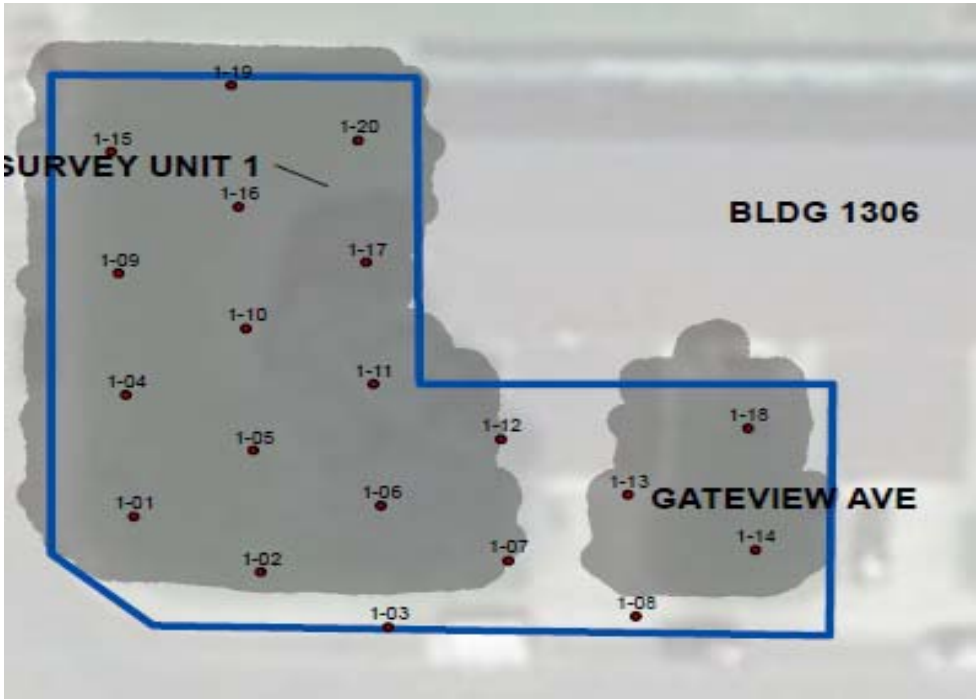
Scope of Data Gaps Investigation – Characterization Surveys

- **Characterization Surveys at each SU designed to meet MARSSIM Class 1 survey guidelines and included:**
  - **100% gamma scan of all accessible areas**
  - **Static measurements of areas indicating elevated scan readings (where applicable)**
  - **Systematic Soil Sampling**
  - **Biased soil sampling in areas of elevated scan results**
  - **All samples analyzed for Ra-226**
  - **Samples from 9th St. Rec. Park (SU 4) also analyzed for Th-232 per CDPH recommendation**

Scope of Data Gaps Investigation – Characterization Surveys

- **Systematic Soil Sampling**
  - **Sample number/density based on area of individual SU**
  - **Minimum rate of 1 sample per 50m^2**
  - **Locations selected based on random-start grid spacing as determined by VSP software**
- **Biased soil sampling in areas of elevated scan results**
- **All samples collected between 0-18 inches**
  - **Removed in 3 x 6-inch lifts (0-6”, 6-12”, and 12-18”)**
  - **Static reading taken from each lift at surface**
  - **If no elevated readings (>IL), 3 lifts composited and sample collected**
- **All samples analyzed for Ra-226**
- **Samples from 9th St. Rec. Park (SU 4) also analyzed for Th-232 per CDPH recommendation**

Summary of Preliminary Findings – Data Gaps Investigation at SU-1

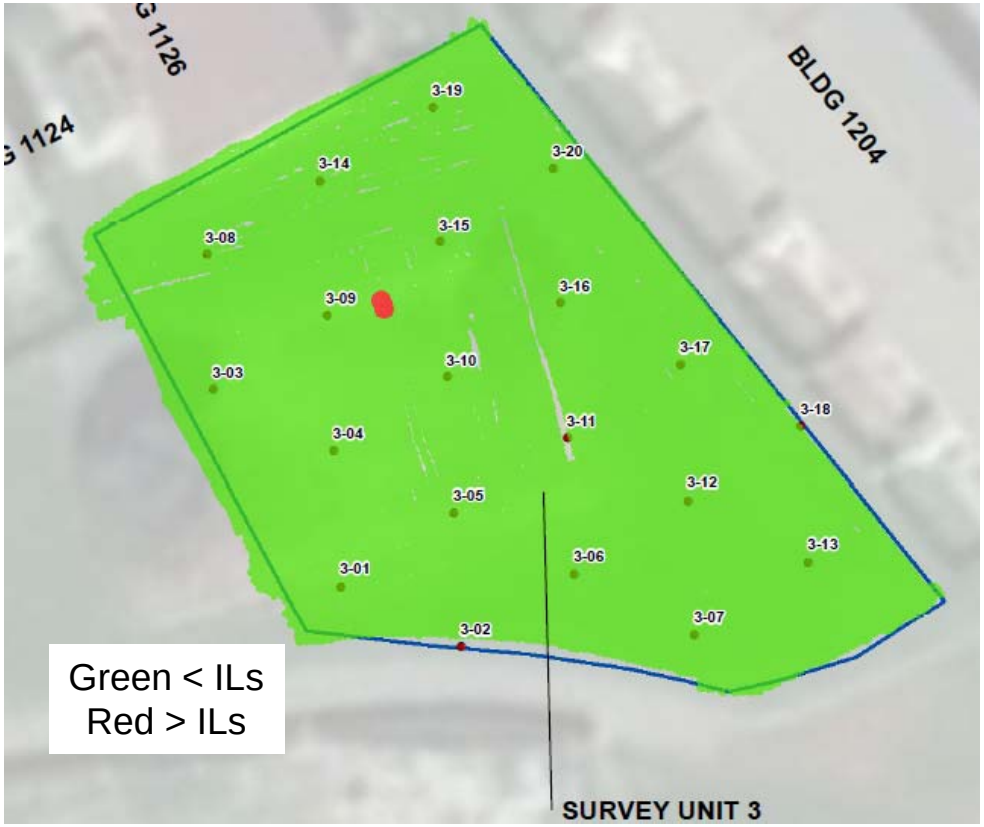


- **No scan readings above IL at SU-1**
- **No static readings or biased soil sampling performed**
- **20 systematic grid samples**

Summary of Preliminary Findings – Data Gaps Investigation at SU-2

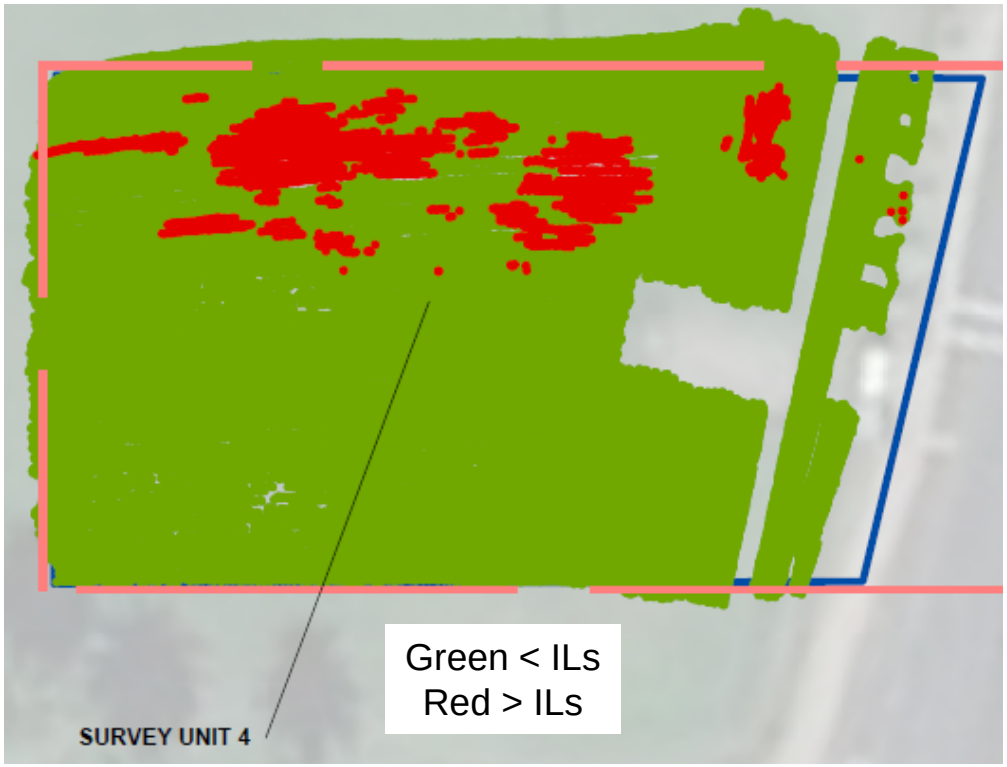
- **Scan readings above IL clustered in SW portion of SU-2**
  - Cluster area located adjacent to NTCRA boundary to west
  - Surface soil may be fill from NTCRA
- **1-Minute Statics**
  - Static readings from 3 locations
  - All static readings *below* ILs
- **15 systematic grid samples**
- **1 biased soil sample collected due to clustered nature of elevated scans**

Summary of Preliminary Findings – Data Gaps Investigation at SU-3



- **Scan readings above IL at SU-3**
- **1-Minute Statics**
  - Static readings from 3 locations
  - All static readings *below* ILs
- **20 systematic grid samples**
- **No biased soil sampling due to distribution of elevated scan results**

Summary of Preliminary Findings – Data Gaps Investigation at SU-4



- **Scan readings above IL at SU-4 area in northern portion of park**
- **1-Minute Statics**
  - Collected from 40 locations
  - Consistent with initial scan readings
- **30 systematic grid samples**
- **6 biased soil samples collected from the areas defined by scan data**

Next Steps

- **Analytical results anticipated in late September 2018**
- **Detailed evaluation of scan/static and analytical data – September/October 2018**
- **Establish Th Background Area**
- **Preparation of Technical Memorandum documenting details and results of Data Gaps Investigation – September-December 2018**
- **Initiate Preparation of FS Addendum – early September 2018**
- **Draft FS Addendum – January 2019**
- **Final FS Addendum – August/September 2019 (anticipated)**

Gamma Walkover Surveys – Data Gaps Investigation

Gamma Walkover Survey at SU 1 – Bldg. 1306

Static Readings – Data Gaps Investigation

Obtaining a Static Reading at SU 2 – Bldg. 1131

Soil Sampling – Data Gaps Investigation

Obtaining a Static Reading from 3 Sample Lifts

Questions